SEQUENCE LISTING

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SHIMABUKURO, ISAO
TADANO, MASAYUKI
MATSUMOTO, YASUNOBU
TSUJI, NAOTOSHI
SATO, YOSHIYA

<120> HETERO TYPE PENTAMER RECOMBINANT VACCINE

<130> 285137US0XPCT

<140> 10/565,595
<141> 2006-01-24

<150> PCT/JP04/10459
<151> 2004-07-23

<150> JP 2003-279156
<151> 2003-07-24

<150> JP 2003-412053
<151> 2003-12-10

<160> 9

<170> PatentIn Ver. 3.3

<210> 1
<211> 293
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 1

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             20                  25                  30

Tyr His Asn Thr Gln Ile His Thr Leu Asn Asp Lys Ile Phe Ser Tyr
         35                  40                  45

Thr Glu Ser Leu Ala Gly Lys Arg Glu Met Ala Ile Ile Thr Phe Lys
     50                  55                  60

Asn Gly Ala Thr Phe Gln Val Glu Val Pro Gly Ser Gln His Ile Asp
 65                  70                  75                  80

Ser Gln Lys Lys Ala Ile Glu Arg Met Lys Asp Thr Leu Arg Ile Ala
                 85                  90                  95
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Tyr Leu Thr Glu Ala Lys Val Glu Lys Leu Cys Val Trp Asn Asn Lys
            100                 105                 110

Thr Pro His Ala Ile Ala Ala Ile Ser Met Ala Asn Gly Pro Gly Pro
        115                 120                 125

Glu Phe Thr Tyr Gly Met Cys Thr Glu Lys Phe Ser Phe Ala Lys Asn
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Pro Ala Asp Thr Gly His Gly Thr Val Val Ile Glu Leu Ser Tyr Ser
145                 150                 155                 160

Gly Ser Asp Gly Pro Cys Lys Ile Pro Ile Val Ser Val Ala Ser Leu
                165                 170                 175

Asn Asp Met Thr Pro Val Gly Arg Leu Val Thr Val Asn Pro Phe Val
            180                 185                 190

Ala Thr Ser Ser Ala Asn Ser Lys Val Leu Val Glu Met Glu Pro Pro
        195                 200                 205

Phe Gly Asp Ser Tyr Ile Val Val Gly Arg Gly Asp Lys Gln Ile Asn
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His His Trp His Lys Ala Gly Ser Thr Leu Gly Lys Ala Phe Ser Thr
225                 230                 235                 240

Thr Leu Lys Gly Ala Gln Arg Leu Ala Ala Leu Gly Asp Thr Ala Trp
                245                 250                 255

Asp Phe Gly Ser Ile Gly Gly Val Phe Asn Ser Ile Gly Lys Ala Val
            260                 265                 270

His Gln Val Phe Gly Gly Ala Phe Arg Thr Leu Phe Gly Gly Met Ser
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Trp Ile Thr Gln Gly
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<212> DNA
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<220>
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ctaaatgata agatattttc gtatacagaa tctctagctg gaaaaagaga gatggctatc 180
attactttta agaatggtgc aacttttcaa gtagaagtac caggtagtca acatatagat 240
tcacaaaaaa aagcgattga aaggatgaag gataccctga ggattgcata tcttactgaa 300
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<220>
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<210> 5
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<221> MOD_RES
<222> (6)..(13)
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<222> (14)..(17)
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<223> see specification as filed for detailed description of
substitutions and preferred embodiments

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Xaa Xaa

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